[Energy mix, learn from foreign experts] “Too much subsidies for renewable are ‘inefficient’…nuclear should not be completely excluded.”

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<1> There is no free energy transition. Words from German energy experts.
Nuclear and coal should not be excluded.
Renewables should gradually replace.
LNG expansion is also only a temporary solution; due to ghg emission, it should be reduced back later.
Pros and cons of each energy source should be properly informed.
Natural environments and economic conditions of South Korea should be considered.
Decisions should be not made abruptly but a long-term approach is needed.

Christoph M. Schmidt, Chairman of the German Council of Economic Experts

Karen Pittel, Director of the IFO Center for Energy, Climate, and Resources

Manfred Fischedick, Vice President of the Wuppertal Institute

The third version of “National Energy Master Plan,” often called “Constitution of energy” was made public on the 19th of April, 2019. Following President Moon’s election pledge, the plan states “there will be a drastic increase in renewable and natural gas while there will be no more constructions of nuclear power plants, which have safety issues, and coal-fired power plants, which are often considered as the main source of PM 2.5.” There are many controversies. It has been pointed out that there will be an instant increase in the electricity price and global ghg reduction target is not adequately reflected.

The government and stakeholders are voicing their opinions questioning whether following the plan will bring a

clear sky without air pollution and whether it is the right choice for the country to abandon both nuclear and coal at the same time.

From April 8th to 12th, Seoul Economy Daily visited Germany, a country that went through such conflicts ahead of South Korea and a role model country for South Korea with regards to energy transition. During that time, we asked for advice from Prof. Dr. Christoph M. Schimdt, known as one of the Germany's 'five wise men' and the Chairman of the German Council of Economic Experts, and Prof. Dr. Karen Pitter, the Director of the IFO, one of the five main economic research institutes in Germany. Also, we interviewed Prof. Dr. Manfred Fischedick, the Vice President of the Wuppertal Institute for Climate, Environment and Energy, who recently visited South Korea. Every one of them agreed to the long-term exclusion of nuclear energy, but they all had different opinions with respect to its speed and direction. To sum up their advice on South Korea, there are three main points. First, "there are high costs involved in the Korean energy transition policy, so they should convince the public on the increased burden of expenses beforehand." Also, "instead of instantly making decisions, discussions should be continuously held." They emphasized that "Germany is also not the right answer. South Korea should find its own answer."

The experts mainly showed negative responses when asked to evaluate German energiewende, which aims for "phase out of nuclear and coal as well as expansion of 100% renewable." Prof. Dr. Schmidt stated that "it is very ambitious to stay away from economy that depends on nuclear and coal" but added that "renewables expansion policy through substantial subsidies has put a major strain on the public and Germany did not enforce an energy price policy that had basis in ghg emissions. Therefore, it will be difficult for Germany to meet the 2020 ghg reduction target." Prof. Dr. Pitter evaluated that "renewable subsidies cost almost 25 billion euros every year and it is very inefficient."

They all agreed to the point that enforcing energy transition in South Korea will put a greater strain on the Korean public. In other words, it is dishonest of the Korean government to enforce the energy transition policy while explaining that 'there will no increases in electricity bills.' Prof. Dr. Pitter said "The current South Korean energy policy is a costly solution. If the government decides not to increase the electricity bills, then there will no increase, but someone will have to bear the expenses." She also explained that "In Germany, electricity prices are set by market prices and the government cannot intervene, so the increase in the renewables subsidies was led to a sharp increase in the electricity bills." Due to such issues, the common opinion was that when the governments enforces energy transition, democratic process are mandatory. Prof. Dr. Fischedick acknowledged and advised that "It is true that there will an increase in electricity bills. For a successful energy transition, through a multi-criteria assessment, pros and cons of all energy sources should be openly shared with the public and stakeholders and their participation should be encouraged." Prof. Dr. Schmidt "if we are talking about a dictatorial government, then it'd be easy to transition the energy policy, but the citizens won't follow. Don't try to find a solution immediately, but instead, try to find a common ground through a long-term dialogue.

There were various opinions when asked about how South Korea should have its energy mix strategy to reduce ghg emissions and PM 2.5. Prof. Dr. Pitter advised that South Korea should not completely exclude nuclear energy. She insisted that "in order to carry the energy transition policy in a long term, it is more desirable to operate nuclear power plants and coal-fired power plants in the short run while gradually replacing them with renewable. It is important to reduce air pollution ratio and attain the ghg reduction goal through such a strategy and this will bring the highest social support with respect to energy transition costs."

Prof. Dr. Schmidt answered that "the answer to energy transition can be found from the market rather than from central plans. Once ghg emission levis are increased, then household and corporations will try to find energy sources with less emissions, so the competitiveness of renewable will naturally strengthen." However, he pointed that "in such a case, there should an alternative plan to secure acceptance of consumers and industry that will face greater burdens."

The opinion that LNG could serve a short-term role, but it would not be fundamental solutions predominated. Prof. Dr. Fischedick claimed that "LNG could be a help for the PM 2.5 problems, but it cannot be a long-term strategy in terms of ghg reduction. Eventually, LNG will have to be reduced as well." Prof. Dr. Pitter pointed out that "Germany is utilizing PNG while South Korea is importing to utilize LNG. One should be informed that additional air pollution and ghg emissions are driven in the process of liquefying and transporting natural gas."

The experts all said that it is important for South Korea to find the right answer of its own considering the country's natural environmental, economical and political conditions. Prof. Dr. Pitter emphasized that

“the fact that renewables prices are much lower these days than those of the times when Germany was deploying renewables would be positive for South Korea. However, as the conditions of the two countries are different, it is desirable for South Korea to efficiently make its investment and reduce costs according to the country’s situations rather than repeating after Germany.” He also added that “it is very crucial to put efforts into renewables deployment for ghg reduction. In return, policies should be planned from an economic aspect to prevent sensitive reactions from the public to the electricity bills.” Prof. Dr. Fischedick also noted that “South Korea’s situation is different from that of Germany, which has had anti-nuclear movement since the 60’s. Every problem has conflicts inside but there should be concession to fine the equilibrium.”